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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/865,152	05/24/2001	Gerald T. Mearini	0937.0013	2816

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EXAMINER	
CHEN, BRET P	

ART UNIT	PAPER NUMBER
1762	

DATE MAILED: 12/12/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

AS-4

Office Action Summary

Application No.	Applicant(s)
09/865,152	Gerald Mearini et al.
Examiner	**Art Unit**
Bret Chen	1762

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☐ Responsive to communication(s) filed on _____.

2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.

3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) 1-19 is/are pending in the application.

4a) Of the above, claim(s) 18 is/are withdrawn from consideration.

5) ☐ Claim(s) _____ is/are allowed.

6) ☒ Claim(s) 1-17 and 19 is/are rejected.

7) ☐ Claim(s) _____ is/are objected to.

8) ☐ Claims _____ are subject to restriction and/or election requirement.

Application Papers

9) ☐ The specification is objected to by the Examiner.

10) ☐ The drawing(s) filed on _____ is/are a) ☐ accepted or b) ☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13) ☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a) ☐ All b) ☐ Some* c) ☐ None of:

1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

*See the attached detailed Office action for a list of the certified copies not received.

14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

a) ☐ The translation of the foreign language provisional application has been received.

15) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s). 3
4) ☐ Interview Summary (PTO-413) Paper No(s). _____
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other:

DETAILED ACTION

Claims 1-19 are pending in this application.

Election/Restriction

1. Restriction to one of the following inventions is required under 35 U.S.C. 121:

I. Claims 1-17,19, drawn to a method, classified in class 427, subclass 255.7.

II. Claim 18, drawn to a product, classified in class 359, subclass 890.

2. The inventions are distinct, each from the other because of the following reasons: Inventions I and II are related as process of making and product made. The inventions are distinct if either or both of the following can be shown: (1) that the process as claimed can be used to make other and materially different product or (2) that the product as claimed can be made by another and materially different process (MPEP § 806.05(f)). In the instant case the product as claimed can be made by another and materially different process such as lamination.

3. Because these inventions are distinct for the reasons given above and have acquired a separate status in the art as shown by their different classification, restriction for examination purposes as indicated is proper.

4. During a telephone conversation with Daniel Thomson on September 23, 2002, a provisional election was made with traverse to prosecute the invention of Group I, claims 1-17,19. Affirmation of this election must be made by applicant in replying to this Office action.

Claim 18 is withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

5. Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(I).

Specification

6. Applicant is reminded of the proper content of an abstract of the disclosure.

A patent abstract is a concise statement of the technical disclosure of the patent and should include that which is new in the art to which the invention pertains. If the patent is of a basic nature, the entire technical disclosure may be new in the art, and the abstract should be directed to the entire disclosure. If the patent is in the nature of an improvement in an old apparatus, process, product, or composition, the abstract should include the technical disclosure of the improvement. In certain patents, particularly those for compounds and compositions, wherein the process for making and/or the use thereof are not obvious, the abstract should set forth a process for making and/or use thereof. If the new technical disclosure involves modifications or alternatives, the abstract should mention by way of example the preferred modification or alternative.

The abstract should not refer to purported merits or speculative applications of the invention and should not compare the invention with the prior art.

Where applicable, the abstract should include the following:
(1) if a machine or apparatus, its organization and operation;
(2) if an article, its method of making;
(3) if a chemical compound, its identity and use;
(4) if a mixture, its ingredients;

(5) **if a process, the steps**.

Extensive mechanical and design details of apparatus should not be given.

It is noted that the claimed invention is directed to a method. The examiner suggests amending the abstract to reflect same.

7. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

It is noted that the claimed invention is directed solely to a method. The examiner suggests amending the title to reflect same.

Claim Rejections - 35 USC § 112

8. Claims 1-17 and 19 are rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

In claim 1, the step of "adjusting the intrinsic stress via deposition parameter modification" is deemed nonenabling because the specification does not enable one skilled in the art to determine how one should adjust the intrinsic stress. The same issue applies to claims 2, 4, 9. Clarification and appropriate amendments are requested.

9. Claims 1-17 and 19 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claim 1, the terms "high index", "low index", "high energy", "well-focused", "near grazing" are deemed relative terms which render the claim indefinite. The term "high", "low", "well", and "near" are not defined by the claim, the specification does not provide a standard for ascertaining the requisite degree, and one of ordinary skill in the art would not be reasonably apprised of the scope of the invention. The same issue applies to claims 2-7, 12-17.

In claim 1, the term "high index" is deemed vague and confusing as to what said index is referring to. The same issue applies to claims 2-7, 12-13, 15-17. Clarification and appropriate amendments are requested.

In claim 1 line 19, the term "the layer" lacks antecedent basis and/or is confusing as to what it is referring to.

Claim 1 contains improper Markush terminology. The phrase should read --selected from the group consisting of--. The same issue applies to claims 2-3, 5-6, 11.

In claim 2, the term "approximately atomically smooth" is deemed a relative term which renders the claim indefinite. The term is not defined by the claim, the specification does not provide a standard for ascertaining the requisite degree, and one of ordinary skill in the art would not be reasonably apprised of the scope of the invention. The same issue applies to claims 4, 14, 17.

In claim 5, the applicant requires the high index layer to be amorphous silicon. However, the high index layer is formed from a epitaxial process in independent claim 1. It is not clear how a epitaxial process can form an amorphous layer. Clarification and appropriate amendments are requested.

Claim Rejections - 35 USC § 103

10. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 1-17 and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Knapp et al. (5,753,319) in view of Morrison et al. (5,403,433).

Knapp discloses a method of making an optical filer by vapor deposition using multilayer coatings including titanium oxide (a high refractive index material) and materials which have low refractive indices (col.1 lines 7-27, col.6 lines 5-6, claim 1). However, the reference fails to teach monitoring and adjusting several parameters.

Morrison discloses a method of depositing a coating using in situ analysis measuring radiance, reflectance, and transmittance (col.3 line 44 - col.4 line 58). The measurements are used to optimize the process (col.8 lines 8-51).

It is noted that Morrison teaches of optimizing a process using different analytical tools. One skilled in the art would realize the an optimized process reduces cost and increases efficiency. It would have been obvious to one skilled in the art to utilize the analytical techniques of Morrison in Knapp's process with the expectation of obtaining an efficient and cost effective process of making an optical filter.

The limitations of claims 2-17 and 19 have been addressed above.

Nyaiesh et al. (H566), Herbots et al. (5,241,214), Gaines et al. (5,637,530), and Kawai et al. (5,200,021) have been provided for additional information.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Bret Chen whose telephone number is (703) 308-3809. The examiner can normally be reached on Monday through Thursday from 6:30 am to 5:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Shrive Beck, can be reached on (703) 308-2333. The fax phone number for this Group is (703) 872-9310. Amendment After Finals should be faxed to (703) 872-9311.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 308-0661.

bc
December 11, 2002

BRET CHEN
PRIMARY EXAMINER